LUCRĂRI, STUDII, ARTICOLE

Volume publicate la edituri naţionale

1. S. Florea, **I. Dumitrache, Elemente de executie hidraulice si pneumatice**, Ed. Didactica si Pedagogica,1967.

2. S. Florea, **I. Dumitrache, Automatizari electronice**, curs tiparit, Ed. Didactica si Pedagogica, 1973.

3. S. Calin, M.Tertisco**, I. Dumitrache, Optimizari in sistemele industriale**, Ed.Tehnica, 1979.

4. S. Florea, **I. Dumitrache, Elemente si circuite fluidice**, Ed. Acad. RSR., 1979.

5. **I. Dumitrache, Tehnica reglarii automate**, Ed. Didactica si Pedagogica, 1980.

6. S. Florea, **I. Dumitrache** s.a., **Elemente de electronica si automatizari**, Ed. Didactica si Pedagogica, 1980.

7. **I. Dumitrache** s.a., **Automatizari si echipamente electronice**, Ed. Didactica si Pedagogica, 1982.

8. S. Florea, **I. Dumitrache** s.a., **Elemente de electronica industriala si automatizari**, Ed. Didactica si Pedagogica, editie completata 1983.

9. S. Calin, **I. Dumitrache** s.a., **Reglarea numerica a proceselor tehnologice**, Ed.Tehnica, 1984.

10. S. Calin, **I. Dumitrache**, **Regulatoare automate**, Ed. Didactica si Pedagogica, 1985.

11. **I. Dumitrache** s.a., **Automatizari electronice**, Ed. Didactica si Pedagogica, 1993.

12. **I. Dumitrache**, C. Buiu, **Introductionto Genetic Algorithms**, Editura Politehnica, Bucuresti, 1995

13. **I. Dumitrache, Intelligent Control of Industrial Robots**, Editura Mediamira Cluj, 1995

14. Sylviane Gentil, D. Popescu, **I. Dumitrache**, I. Tabus, **Comande Numerique et Intelligence Artificielle en** Automatique, Ed.Tehnica 1997, ISBN 973-31-1001

15. **I. Dumitrache,** N. Constantin, M. Dragoicea, **Retele neuronale in Identificarea si Conducerea Proceselor**, Ed. Matrix 1999

16. **I. Dumitrache,** C. Buiu, **Algoritmi genetici,** Ed. MEDIAMIRA Cluj, 2000

17. **I. Dumitrache**, C. Buiu, O. Ghica, **Sisteme numerice pentru conducerea proceselor**, Ed. Electra, 2002

18. **I. Dumitrache**, M. Popescu (Editors), **File de Istorie – 195 de ani in Universitatea Politehnica Bucuresti**, Politehnica Press.

19. **I. Dumitrache, Ingineria Reglarii Automate**, Editura Politehnica Press, 2005

20. **I. Dumitrache, Ingineria Reglarii Automate**, editie noua revizuita, 750 de pagini, Editura Politehnica Press, 2010

Volume editate

1. **Tertiary education and innovation system analysis,** Editura Academiei Române, Bucureşti, 2006 (impreuna cu I. Mihailescu si A.Curaj)

2. **Automatica** vol. I, Editura Academiei Române, Bucureşti, 2009

3. **Automatica** vol. II, Editura Academiei Române, Bucureşti, 2013

4. **Automatica** vol.III – Aplicatii, Editura Academiei Române, Bucureşti, 2015

Cărți de uz didactic

1. **I. Dumitrache**, **Elemente de electronica si automatizare**, curs tiparit IPB, 1973

2. **I. Dumitrache**, **Metoda variabilelor de stare pentru analiza sistemelor automate liniare continue si discontinue**, curs tiparit IPB - 1969

3. **I. Dumitrache** s.a., **Algoritmi de calcul pentru sisteme automate liniare**, tipografie IPB, 1973

4. **I. Dumitrache** s.a., **Elemente de electronica si automatizari**, indrumar de laborator IPB, 1974

5. S. Florea, **I. Dumitrache**, I. Catana, **Elemente de automatizari pneumatice si hidraulice**, indrumar de laborator, tiparit IPB, 1975

6. **I. Dumitrache**, M. Atodiroaiei, **Simularea sistemelor dinamice SIMSID**, IPB, 1975

7. **I. Dumitrache**, **Elemente de teoria sistemelor automate**, curs tiparit IPB, 1977

8. **I. Dumitrache**, **Elemente si echipamente de automatizare pentru masini unelte**, tiparit IPB, 1977

9. **I. Dumitrache,Tehnica reglarii automate**, indrumar de laborator, tiparit IPB, 1977

10. **I. Dumitrache**, **Tehnica reglarii automate**, curs tiparit IPB, 1979

11. **I. Dumitrache**, M. Dumitru, **Pachet de programe pentru proiectarea si simularea sistemelor automate**, Tipografia IPB, 1980

12. **I. Dumitrache,Proiectarea sistemelor numerice de reglare**, Tipografia IPB, 1985

13. **I. Dumitrache** s.a., **Structuri de reglare**, indrumar de laborator, Tipografia IPB, 1985

14. **I. Dumitrache** s.a., **Bazele teoretice ale reglarii automate**, indrumar de laborator, Tipografia IPB, 1986

15. **I. Dumitrache**s.a., **Bazele teoretice ale reglarii automate, culegere de probleme**, Tipografia IPB, 1987

16. **I. Dumitrache** s.a., **Tehnici de conducere inteligenta a proceselor**, Editura Politehnica, 1993

Capitole din volume publicate la edituri internaționale

1. A.B. Pavel, C.I. Vasile, **I. Dumitrache – Membrane Computing in robotics Beyond Artificial Intelligence: Contemplations, Expectations, Applications** (Topics in Intelligent Engineering and Infoprmatics), Springer, 2012

2. I. Necoara, **I. Dumitrache**, J. Suykens – **Smoothing techniques-based model predictive control algorithms for networks**, capitol carte in "Time Delay Systems: Methods, Applications and New Trends", Lectures Notes in Computes Science, Springer 2012, vol. 243

3. C.M. Dumitrascu, **I. Dumitrache – Human Skin Detection Using Texture Information and Vector Processing Techniques by Neural Networks,** pp. 59-77, capitol in Advances in Intelligent Control Systems and Computer Science, Springer, 2012

4. S.I. Caramihai, **I. Dumitrache – Urban Traffic Monitoring and Control as a Cyber Physical Systems Approach**, pp. 355-367, capitol in Advances in Intelligent Control Systems and Computer Science, Springer, 2012

5. **I. Dumitrache**, Simona Iuliana Caramihai –**The Intelligent Manufacturing Paradigm in Knowledge Society** capitolin "*Knowledge Management*"; Ed: Pasi Virtanen and Nina Helander, Publisher: InTech, 2010

6. A. Guta, **I. Dumitrache**, D. McFarlone, T. Masood – **Rationals of Holonic Manufacturing Systems in Leather Industry**, pg. 199-212, in Lecture Notes in Artificial Intelligence, Springer, 2013

7. S. Olaru, **I. Dumitrache**, D. Dumur – **Geometrical Analysis of Model Predictive Control: A Parametrized Polyhedral Approach**, pg.439-447 in Lecture Notes in Computer Science – Numerical Analysis and its Applications, Springer, 2008

Articole publicate în reviste/jurnale

1.	S. Florea **I. Dumitrache** V. Gaburici	**Elemente folosite in tehnica calculului analogic si numeric**, Automatica si Electronica, vol.8, nr.2/1964, pag.73-79
2.	S. Florea **I. Dumitrache**	**Elemente de calcul numeric pneumatice, bazate pe interactiunea curentilor de aer**, Automatica si Electronica, vol.8, nr.3/1964, pag.121-126.
3.	S. Florea **I. Dumitrache**	**Consideratii asupra elementelor de calcul pneumatice, bazate pe interactiunea jeturilor de aer**, IPB, nr.1/1966.
4.	S. Florea **I. Dumitrache**	**Calculul organelor de executie pentru reglarea debitelor de fluid**, Automatica si Electronica, vol.8, nr.2/1966, pag.70-75

5. S. Florea
    I. Dumitrache   **Unele probleme privind dinamica sistemelor hidraulice**,
                           Bul. IPB, nr.6/1967, pag. 101-112

6. S. Florea
    I. Dumitrache   **Amplificatoare fluidice interconectate**, Automatica si
                           Electronica, nr.1/1968, pag.11-16

7. **I. Dumitrache**   **Elemente fluidice utilizate in tehnica calculului numeric**,
                           AMC, nr.12/1969, pag. 97-105

8. **I. Dumitrache**   **Contributii la sinteza sistemelor si circuitelor fluidice
                           numerice**, teza de doctorat in 1970

9. **I. Dumitrache**   **Proiectarea asistata de calculator a echipamentelor si
                           circuitelor numerice**, Automatica si Electronica, 20/1970,
                           nr.4, pag.171-177

10. **I. Dumitrache**   **Principii de realizare a sumatoarelor binare fluidice**,
                           Automatica si Electronica, nr.6/1970, pag.254-259

11. **I. Dumitrache**
    S. Florea   **Sistem de comanda automata cu elemente fluidice**,
                           Constructia de Masini, nr.4/1971, pag.200-206

12. **I. Dumitrache**   **Simulator fluidic de elemente si circuite numerice SELF-
                           1**, Automatica si Electronica, nr.5/1971, pag.

13. **I. Dumitrache**   **Cercetarea experimentala a elementelor fluidice**,
                           Automatica si Electronica, nr.5/1971

14. S. Florea
    I. Dumitrache   **Echipament fluidic pentru protectia tehnologica a buclei
                           de iradiere a probelor de combustibil nuclear**, Automatica
                           si Electronica, nr.1/1972

15. **I. Dumitrache**   **Circuite fluidice comparatoare si de memorie**, Automatica
                           si Electronica, nr.2/1972, pag. 64-69

16. **I. Dumitrache**   **Sinteza unor circuite fluidice cu logica de prag**, Bul.IPB,
                           nr3/1972, pag. 59-67

17. **I. Dumitrache**   **Analiza regimului stationar si tranzitoriu a elementelor
                           fluidice numerice**, AMC, nr.19/1973

18. S. Florea
    I. Dumitrache   **Threshold logic bymeans fluidic elements**, Automatica
                           IFAC, vol.9, Pergamen Press, 1973, pag. 47-52

19. **I. Dumitrache**
    S. Dumitriu   **Algoritm de calcul a sistemelor de calcul automate cu
    M. Atodiroaiei   reactie dupa stare**, Automatica si Electronica, nr.1/1974,
                           pag.13-21

20. **I. Dumitrache**   **Algoritm de calcul al timpului de raspuns al unui bistabil fluidic**, Bul.I.P.B., nr.2/1975, pag. 51-57

21. **I. Dumitrache**   **Proiectarea asistata de calculator a sistemelor fluidice numerice**, Automatica siu Electronica, nr.4/1976, pag.171-177

22. **I. Dumitrache**
D. Popescu   **Metoda sectionarii planelor pentru optimizarea sistemelor multivariabile**, Bul.I.P.B., nr.1/1977, pag.67-78

23. **I. Dumitrache**   **Sistem de comanda fluidica pentru masini-unelte**, AMC, nr.22/1977

24. **I. Dumitrache**
M. Atodiroaiei   **Limbaj de simulare a sistemelor dincamice SIMSID**, AMC, nr.22/1977, pag.181-188

25. **I. Dumitrache**   **Simularea numerica a sistemelor hidraulice**, Bul.I.P.B., 1978, pag.75-82

26. **I. Dumitrache**
D. Popescu   **Metode de gradienti pentru optimizare**, AMC, nr.26/1978

27. **I. Dumitrache**
D. Popescu   **Metode de optimizare prin "cautari" fara evaluarea derivatei**, AMC nr.27/1978, pag. 67-102

28. **I. Dumitrache**
S. Dumitriu
F. Munteanu   **Automatic Control of Biochemical Fermentation Process**, Bul.IPB, seria Elth., tom.XL, 1978,pag.83-89

29. M. Dumitrache
I. Dumitrache   **Rolul sistemului vizual in relatia om-masina**, Rev. Oftalmologie, nr.4/1979

30. **I. Dumitrache**
S. Dumitriu   **Conducerea numerica cu microcalculator a unui fermentator**, Studii de biotehnologie, nr.7/1979, pag.34-45

31. **I. Dumitrache**
D. Streja   **Sistem pupilar studiat cu ajutorul multimilor vagi**, Studii si cercetari de biotehnologie, nr.10/1980

32. **I. Dumitrache**
M. Mugescu   **Sistemul respirator uman ca sistem adaptiv**, Studii si cercetari de biotehnologie, nr.10/1980

33. **I. Dumitrache**
S. Dumitriu
F. Munteanu   **Optimal control algorithms for c.c. motor**, Revue Electrotechnique, nr.1/1981, pag. 63-71

34. **I. Dumitrache**   **Utilizarea calculatoarelor in diagnosticarea automata**, Studii de Biotehnologie, nr.12/1981

35. **I. Dumitrache**
    S. Dumitriu
    Sintez descretnove algoritma speremeno structuri deia upravlenii tiristornih provodov, Bul. IPB, seria Electrotehnica, nr.3/1983, pag.257-262

36. **I. Dumitrache**
    s.a.
    Conducerea on-line a proceselor de biosinteza-achizitie de date si identificarea cu microcalculator de proces SPOT-80, Revista de chimie, nr.10/1986, pag.865-869

37. **I. Dumitrache**
    F. Munteanu
    G. Musca
    Sistem cu microcalculator de proces pentru supravegherea automata a unui bioreactor. Bul.IPB, Tom. XLVIII, seria Automatica, 1986, pag.11-28

38. C. Spataru
    G. Ionescu
    I. Dumitrache
    Sistem adaptiv cu regulator dead-beat si estimare prin metoda variabilelor instrumentale. Bul. IPB, 1987, pag.71-84

39. **I. Dumitrache**
    I. Mihu
    G. Musca
    Nonlinear algorithms for slow processes, Bul.IPB, seria C.C/1988

40. P. Galan
    I. Dumitrache
    S. Dumitriu
    Modelul matematic simplificat al masinii sincrone trifazate. Electrotehnica, Electronica, Automatica, EEA, nr.7/1989, pag.279-285

41. **I. Dumitrache**
    I. Mihu
    G. Musca
    Non-standard Control Algorithms Implemented on Microprocessor based Digital Controller, Bul.IPB, 1989

42. **I. Dumitrache**
    S. Dumitriu
    G. Galan
    Acordarea blocurilor de stabilizare ale regulatoarelor de tensiune al generatorului sincron, EEA nr.3/1990, pag.126-130

43. **I. Dumitrache**
    C. Buiu
    Genetic Algorithms in Process Identification and Control, Studies in Informatics in Control, vol.3, nr.4, 1994, pag.383-385

44. **I. Dumitrache**
    G. Calcev
    C. Buiu
    A survey on Tuning Techniques in Fuzzy Logic Control, Bul.I.P.B., Seria Inginerie Electrica, LIV, no 1-2, 1991

45. **I. Dumitrache**
    C. Buiu
    Genetic Learning of Fuzzy Controllers, Mathematics and Computers in Simulation 1610 (1999), pp. 1-14

46. C. Buiu
    M. Albu
    I. Dumitrache
    D.Gillet
    Advanced Technologies for Remote Experimentation, U.P.B. Scientific Bulletin, Series C, vol. 62, No. 1, pag. 73-82, 2000

47. **I. Dumitrache**
    M. Caramihai

    Optimal Fed-Batch Bioprocess Control *via* **Intelligent System Based on Hybrid Techniques**, Control Engineering and Applied Informatics Revue, April 2001, Vol. 3, No. 1, ISSN 1454-8658, pag. 5-14

48. **I. Dumitrache**

    Intelligent Autonomous Systems, Revue Roumaine des Sciences Techniques, no. 3, pp. 439-454, Bucuresti, 2000

49. C. Buiu
    I. Dumitrache
    F. Mihai

    Advanced technologies to serve robotics education, Buletinul Stiintific al Universitatii "Politehnica" din Timisoara, Romania, Seria Automatica si Calculatoare (Periodica Politehnica, Transactions on Automatic Control and Computer Science), Vol. 47 (61), pp. 48-51, 2002

50. **I Dumitrache**
    A. M. Stanescu
    A. Cura
    S. Caramihai

    Supervisory Control and data acquisition for virtual enterprise, Int. Journal of Production Research, vol. 2, no. 15, pp. 3545-3559, 2002

51. **I. Dumitrache**
    M. Dragoicea

    Neural Mechanisms of Learning and Control in Mobile Robotic Systems. Buletinul Stiintific al Universitatii Politehnica din Timisoara, Romania, Seria Automatica si Calculatoare, Periodica Politehnica, Transactions on Automatic Control and Computer Science, Vol.48 (62), 2003, ISSN 1224-600X, 2003

52. M. Dragoicea
    I. Dumitrache
    D.S. Cuculescu

    Multi-behavioral model based autonomous navigation of the mobile robots, International Journal Automation Austria, Vol. 11, Nr.1, pp:1-20, ISSN 1562-2703, 2003

53. C. Buiu
    I. Dumitrache
    M. Zainea

    Design and optimization of a fuzzy logic controller for a simulated autonomous robot, Control Engineering and Applied Informatics, Vol. 5, Nr. 3-4, pp. 55-63, ISSN 1454-8658, 2003

54. A. Cosmescu,
    I. Dumitrache

    Multivariable fuzzy controller for the activated sludge process. Control Engineering and Applied Informatics, Vol. 5, Nr. 3-4, pp. 64-72, ISSN 1454-8658, 2003

55. **I. Dumitrache**
    M. Dragoicea

    Intelligent Techniques for Cognitive Mobile Robots, Journal of Control Engineering and Applied Informatics, 2004, No. 2, Vol. 5, pp: 3-8 , ISSN 1454-8658

56. **I. Dumitrache**
    M. Dragoicea

    Some Problems of Advanced Mobile Robot Control, Journal of Control Engineering and Applied Informatics, 2005, No. 4, Vol. 7, pp: 11-30, ISSN 1454-8658

57. S. Olaru
D. Dumur
I. Dumitrache

Continuity of Control Laws Based on Multiparametric Linear Programs. International Journal of Tomography and Statistics, vol. 5, 2006

58. **I. Dumitrache**
A. Chirvase
M. Caramihai

Progress in Characterization Modeling&Control of Aerobic Bioprocesses. Revue Romaine de Chimie, ISSN 0035-3930, 2006

59. S. Munteanu
I. Dumitrache

The intelligence of a Hybrid System: DiaMed. CEAI Journal, vol. 8, nr. 2, pp. 54-60, 2006

60. S. Munteanu,
I. Dumitrache

Applying DiaMed Hybrid Algorithm to the Diagnosis of Dynamic System. The Scientific Bulletin of Politehnica University, vol. 68, 2006

61. **I. Dumitrache**

From Model-Based Strategies to Intelligent Control Systems. WSEAS Trans. on Systems and Control, nr. 6, vol. 3, June 2008, pp. 569-575, ISSN 1991-8763

62. **I. Dumitrache**
S. Iliescu
P. Teta
I. Fagarasan

Towards Autonomous Control of Electrical Power Systems. Journal of Control Engineering and Applied Informatics, ISSN 1454-8658, vol. 10, nr. 1, pp. 15-22, 2008

63. I. Necoara
I. Dumitrache

An accelerated optimization alforithm for distributed model predictive control. Control Engineering and Applied Informatics, vol. 11, no. 3, pp. 16--23, September 2009, ISSN 1454-8658, pp. 8, impact

64. I. Fadi
I. Dumitrache

Optimization of Control Strategy Assignment.A Framework Structure for Multiple Mobile Robots. Journal of Control Engineering and Applied Informatics, Vol.11, No. 4, 2009, ISSN 1454-8658, pp. 36-44, impact

65. M. Caramihai
I. Dumitrache
A.A. Chirvase

Progress in characterization, modeling and control of aerobic bioprocess. Part II. Aerobic bioprocess modeling and control. Revue Roumaine de Chimie, Vol.54, No. 8, 2009, ISSN 0035-3930, pp. 619-635, impact 0.262

66. Fadi Issa
I. Dumitrache

Hybrid Geno-Neuro for optimization of Control Solution selection in multi mobile robots. Buletinul UPB – seria C, numarul 3, anul 2010

67. Olumide Obe
I. Dumitrache

Fuzzy Control of Autonomous mobile robots. Buletinul UPB, seria C, numarul 3, anul 2010

68. Sorin Olaru
    Didier Dumur
    I. Dumitrache

On the feasibility of Constrained generalized Predictive Control. Buletinul UPB, seria C, nr. 4, anul 2010

69. O. Arsene
    I. Dumitrache
    I. Mihu

Medicine expert system dynamic Bayesian Networks and Ontology based. Expert Systems with Applications, 38, 15253-15261, ISSN 0957-4

70. I. Necoara
    V. Nedelcu
    I. Dumitrache

Parallel and distributed optimization methods for estimation and control in networks. Journal of Process Control, vol.21, nr.5, pp 756-766, 2011

71. I.D. Niculae
    I. Dumitrache

Design of embedded systems able to adapt both scheduling and control parameters. Buletinul U.P.B., seria C, Nr. 4, 2011

72. V. Balanica
    I. Dumitrache
    M. Caramihai

Evaluation of breast cancer risk using fuzzy logic, Buletinul U.P.B., seria C, nr. 1, 2011

73. C.I. Vasile
    A.B. Pavel
    I. Dumitrache
    Gh. Paun

On the power of enzymatic numerical P systems. Acta Informatica, September 2012, ISI indexed Vol. 49, Issue 6, pp. 395-412 http://link.springer.com/journal/236

74. B.A.Hanchevici
    M.Patrascu
    I. Dumitrache

A hybrid PID-Fuzzy Control Linear SISO Systems with variant Communication Delays. Advances in Fuzzy Systems, 2012

75. S.Avram
    D.Caragea
    I. Dumitrache

A new approach to bibliometrics based on semantic similarity of scientific papers. Control Engineering and Applied Informatics, ISI indexed vol.14, nr.3, pp.35-43, 2012

76. C.I.Vasile
    A.B.Pavel
    I. Dumitrache

Universality of Enzymatic Numerical P Systems. International Journal of Computer Mathematics

77. V.Balanica
    I. Dumitrache
    L. Preziosi

Breast Cancer Diagnosis based on Speculation Feature and Network Techniques. International Journal of Computers Communications and Control Vol.8, Issue, pg. 354-365, 2013.

78. A.B. Hanchevici
    I. Dumitrache

Robustness of fuzzy optimal control for variable communication delays in networked control systems. UPB, Sci.Bull, Series C, vol. 75, Iss 4, pg.13-24, 2013

79. **I. Dumitrache**   **Cyber-Physical-Systems (CPS) – factor determinant in economia bazata pe inovare si cunostinte**. Revista Romana de Informatica si Automatica, vol.23, nr.4, 2013

80. S. Avram   **Semantic Analysis Applications in Computational**
    V. Velter   **Biometrics.** Control Engineering and Applied Informatics
    I. Dumitrache   Journal,Vol.16, no.1, pp.62-69, 2014

81. O. Arsene   **Expert System for medicine diagnosis using software**
    I. Dumitrache   **agents.** Expert Systems and Applications, 42(2014), pag
    Ioana Mihu   1825-1834

82. D. Repta,   **Towards the development of semantically enabled**
    M. Moisescu   **flexible process monitoring systems,** International Journal
    I. Sacală   of Computer Integrated Manufacturing, 1-13
    I. Dumitrache
    A.M. Stănescu

83. S. Guță   **Towards the Smart Tannery Enterprise.** Journal of the
    I. Dumitrache   Society of Leather Technologists and chemists" (SLTC –
    J. Ioannidis   Journal) pag. 151-156.

84. S. Guță   **A multi-agent approach for leather processing**
    I. Dumitrache   **monitoring and quality control"** – Buletin UPB, seria C,
                        nr.2/2015, pag.17-30.

85. V. Vlădăreanu   **Versatile Inelligent Portable Robot Control Platform**
    I. Dumitrache   **Based on Cyber-Physical- Systems Principles.** Studies in
    L. Vlădăreanu   Informatics and Control; Vol.24/2015; pag.409-419.
    I. Sacală
    M. Moisescu

86. A.C. Nae   **Airborne Collision Avoidance System as a Cyber-**
    I. Dumitrache   **Physical System**. INCAS Bulletin 7, no. 4 (2015).

87. C.I. Vasile   **Multi-agent membrane system**. Scientific Bulletin UPB,
    I. Dumitrache   U.P.B. Sci. Bull., Series C, Vol. 78, Iss. 2, 2016 ISSN 2286-
                        3540

88. C.M. Dumitrescu   **Human Skin Detection Using Neural Networks And**
    I. Dumitrache   **Block Processing Techniques**. U.P.B. Sci. Bull., Series C,
                        Vol. 78, Iss. 1, 2016 ISSN 2286-3540

89. A.B. Pavel   **Hybrid Numerical P Systems**. U.P.B. Sci. Bull., Series A,
    I. Dumitrache   Vol. 78, Iss. 2, 2016 ISSN 1223-7027

90. **I. Dumitrache**   **Evolutionary Networks with Generalized Neurons**
    D.C. Popescu   **Applied in Battery SoC Estimation**. Romanian Journal of
                        Information Science and Technology 19, no. 1-2 (2016): 98-
                        115

91. O. Arsene
    I. Dumitrache
    Mind as multiresolution system based on multiagents architecture" Biological Inspired Cognitive Architectures — martie 2017.(https://www.iournals.elsevier.com/biologicallv-inspired cognitive-architectures/)

92. D. Sârbu
    I. Dumitrache
    A Conceptual Frammework for Artificial Creativity in Visual Arts. International Journal of Computers, Communication and Control -N ^{Q} 3, 2017 http://www.scimagoir.com/iournalsearch.php?q=11800154542&tip=sid

92/b. D. Sârbu
    I. Dumitrache
    Artificial Creativity with Kinetic Drawing systems based on stochastic motion. Buletinul UPB, seria C, N e 2, 2017 (https://www.scientificbulletin.upb.ro/SeriaC InginerieElectricasiStiintaCalculatoarelor.php)

93. D.M. Repta
    M.A. Moisescu,
    I.S. Sacala
    I. Dumitrache
    A.M. Stanescu
    Towards the development of semantically enabled flexible process monitoring systems. International Journal of Computer Integrated Manufacturing 30, no. 1 (2017): 96-108.

94. **I. Dumitrache**
    I.S. Sacala
    M.A. Moisescu
    S.I. Caramihai
    A Conceptual Framework for Modeling and Design of Cyber-Physical Systems. Studies in Informatics and Control 26, no. 3 (2017): 325-334.

95. D. Repta
    I. Dumitrache
    I. Sacala
    M. Moisescu
    A. Stanescu
    S. Caramihai
    Automated process recognition architecture for cyber-physical systems. Enterprise Information Systems 12, no. 8-9 (2018): 1129-1148.

96. M .Moisescu
    I. Sacala
    I. Dumitrache
    S. Caramihai
    Predictive maintenance and robotic system design. Journal of Fundamental and Applied Sciences 10, no. 4S (2018): 234-239.

97. **I. Dumitrache**
    S.I. Caramihai
    M.A. Moisescu
    I.St. Sacala
    L. Vladareanu
    D. Repta
    A Perceptive Interface for Intelligent Cyber Enterprises. Sensors 19, no. 20 (2019): 4422.

98. M.A. Moisescu
    I.St. Sacala
    I. Dumitrache
    S.I. Caramihai
    B. Barbulescu
    M. Danciuc
    A cyber-physical systems approach to cognitive enterprise. Periodicals of Engineering and Natural Sciences 7, no. 1 (2019): 337-342.

99. D.I. Dogaru
    I. Dumitrache

Cyber Attacks of a Power Grid Analysis Using a Deep Neural Network Approach. Journal of Control Engineering and Applied Informatics 21, no. 1 (2019): 42-50.

100. C.M. Dumitrescu
     I. Dumitrache

Combining Deep Learning Technologies with Multi-Level Gabor Features for Facial Recognition in Biometric Automated Systems. Studies in Informatics and Control 28, no. 2 (2019): 221-230.

101. A. Nae
     I. Dumitrache

Fuzzy-Logic Adaptive Control of Traffic in an Urban Junction. Submitted for publication at UPB Sci. Bull (2018)

BREVETE DE INVENȚIE

1. **I. Dumitrache**
   M. Mugescu
   A. Penta

   Aparat pentru ventilatie pulmonara artificiala. Brevet de Inventie nr.71814/1979

2. **I. Dumitrache**
   s.a.

   Respirator electro-fluidic (electro-pneumatic). Brevet de Inventie nr.71814/ 1979

3. **I. Dumitrache**
   s.a

   Regulator electronic cu structura variabila. Brevet de Inventie nr. 105027/ 10.01.1992

4. L. Vladareanu
   R.I. Munteanu
   T. Sireteanu
   I. Dumitrache
   s.a.

   Metoda si dispozitiv de control hibrid „Viteza-Pozitie" cu aplicatii la platforma inteligenta de control. Brevet N P. Medalie de aur la salonul de inventii de la Geneva 31.03.2017

   Diploma si medalie de aur cu mentiunea „Expozitia mondiala a inventiilor", cercetarii si noilor tehnologii — Barcelona 05.05.2017

Lucrări publicate în volumele unor conferințe naționale

1. A. Oprean
   F. Ionescu
   I. Dumitrache

   Probleme ale reglarii automate ale sistemelor de actionare hidraulice a masinilor-unelte, Lucrarile primei conferintei nationale de masini-unelte, Bucuresti, 1974, vol.2, pag.90-97.

2. A. Popescu
   I**. Dumitrache**
   F. Ionescu

   Proiectarea unui sistem electrohidraulic pentru selectarea turatiilor la masinile-unelte cu cutii de viteza cu roti baladoare, Lucrarile conferintei a 2-a de Masini-Unelte, Bucuresti, 1976, vol.I, pag.90-101.

3. **I. Dumitrache**
    I. Catana
    A. Moldoveanu

    Proiectarea asistata de calculatora sistemelor hidraulice pentru masini-unlte, Lucrarile Conferintei a II-a de Masini-Unelte, Bucuresti, 1976, pag. 141-150.

4. **I. Dumitrache**
    S. Dumitriu

    Time optional control algorithm of electrical D.C. Drives, Preprints of Second National Conference on ElectricalDrives, Cluj-Napoca, 1980.

5. **I. Dumitrache**
    M. Sturzoiu

    Utilizarea microcalculatoarelor in conducerea robotilor industriali, Lucrarile primului simposion de Teoria Sistemelor, Craiova, 1980, vol.I, pag.221-229.

6. **I. Dumitrache**
    S. Dumitriu
    F. Munteanu

    Algoritmi de reglare numerica a actionarilor de curent continuu, Lucrarile primului simposion de Teoria Sistemelor, Craiova, 1980, vol.I, pag.257-263.

7. **I. Dumitrache**
    A.M. Stanescu

    Structuri si algoritmi de conducere pentru roboti, Lucrarile Simpozionului National de Roboti, 1981, vol.I, pag.85-92.

8. **I. Dumitrache**
    V. Iorga

    Programe si algoritmi de reglare implementati pe microcalculatoare-regulatoare, Lucrarile celei de-a 4-a Conferinte de Sisteme Automate si Informationale in Industrie, SAII, Bucuresti, 1981.

9. **I. Dumitrache**
    s.a.

    Sistemul distribuit de conducere SDC-2050, Lucrarile celei de-a 4-a Conferinte de Sisteme Automate si Informationale in Industrie, SAII, Bucuresti, 1981.

10. **I. Dumitrache**
    A.M. Stanescu

    Algoritmi si structuri de conducere pentru R.I., Lucrarile primului simposion de Roboti Industriali, Bucuresti, 1981, pag.85-92.

11. **I. Dumitrache**
    A.M. Stanescu

    Consideratii privind alegerea optima a algoritmilor si structurilor de conducere a R.I., Lucrarile primului simposion de Inteligenta Artificiala, 1981.

12. **I. Dumitrache**
    G. Musca

    Algoritmi de reglare numerica a proceselor cu timp mort, Lucrarile primului simposion de Microprocesoare, microcalculatoare si microaplicatii, Bucuresti, 1981.

13. **I. Dumitrache**
    S. Dumitriu

    Algoritmi evoluati in conducerea cu microprocesoare a proceselor rapide, Conferinta CNETAC, 1982, pag. 157-161.

14. **I. Dumitrache**

    Algoritm de reglare dupa stare a proceselor cu timp mort, Lucrarile celui de-al doilea simposion de Teorie a Sistemelor, vol.2/1982, pag.

15. **I. Dumitrache** s.a. — **Programe de aplicatii pentru SRA-100**, Lucrarile celei de-a 9-a sesiuni IPA, 1982, pag.

16. **I. Dumitrache** s.a. — **Sistem distribuit de conducere a proceselor SDC-2050**, Lucrarile celei de-a 9-a sesiuni IPA, 1982, pag.

17. **I. Dumitrache** s.a — **Unitate de reglare pe baza de SRA-100**, Lucrarile celei de-a 9-a sesiuni IPA, 1982, pag.

18. **I. Dumitrache** S. Dumitriu F. Munteanu — **Some nonlinear digital algorithms of tiristor convertes fed D. motor**, Lucrarile Conferintei a 3-a de Actionari electrice, vol.3, pag. 61-66.

19. **I. Dumitrache** — **Unele probleme privind proiectarea asistata de calculator a sistemelor de conducere a robotilor**, Lucrarile Conferintei, CNETAC, 1982.

20. **I. Dumitrache** — **Structuri ale sistemelor numerice pentru comanda motoarelor de c.c.**, Lucrarile Conferintei CNETAC, 1982.

21. **I. Dumitrache** M. Mugescu — **Unele probleme privind proiectarea optima a interfetei de proces pentru MCR-802**, Lucrarile celei de-a 5-a conferinte SAII/8, vol.II, pag.66-74.

22. **I. Dumitrache** I. Mihu — **Proceduri de sinteza a sistemelor multivariabile cu timp mort**, Lucrarile celei de-a 5-a conferinte SAII/8, 1983, pag.76-81.

23. **I. Dumitrache** S. Dumitriu F. Munteanu — **Algoritmi si structuri de conducere a proceselor**, Sesiunea de comunicari tehnico-stiintifice a Inst. Politehnic Galati, 1983, pag. 209-215.

24. **I. Dumitrache** R. Chervase — **Modelarea proceselor de biosinteza**, A 3-a Conferinta Nationala de Cibernetica, vol.1, 1985.

25. **I. Dumitrache** s.a. — **Conducerea cu calculator a unui bioreactor de laborator**, Lucrarile celei de-a 3-a Conferinte Nationale de Cibernetica, vol.II, 1985

26. **I. Dumitrache** I. Mihu — **Acordarea unui regulator discret cu predictor Smith pentru procese cu timp mort, pe baza functiilor de sensibilitate**, Al 4-lea simpozion national de Teoria Sistemelor, Craiova, 1986.

27. **I. Dumitrache** S. Dumitriu F. Munteanu — **Sisteme de achizitie si prelucrare primara de date pentru un proces de biosinteza**, SAMTEC, Bucuresti, 1986, vol.3., pag. 91-94.

28. **I. Dumitrache**
s.a.
Algoritmi neliniari de reglare numerica implementati pe structuri de regulatoare cu microprocesor, Lucrarile Conferintei CNETAC, Bucuresti, 1986.

29. **I. Dumitrache**
S. Dumitriu
Optimizarea functionarii hidrogeneratoarelor prin acordarea regulatorului de excitatie cu semnale aditionale, CNETAC, Bucuresti, 1986.

30. **I. Dumitrache**
S. Dumitriu
Metoda de acordare asistata de calculator a regulatorului cu semnale auxiliare pentru sistemul de excitatie al generatoarelor sincrone, Al 4-lea Simpozion National de Teoria Sistemelor, Craiova, 1986, vol.2, pag.98-102.

31. **I. Dumitrache**
S. Dumitriu
Optimizarea parametrica asistata de calculator a blocului de stabilizare a alunecarii generatoarelor sincrone, Simp. de Electronica de putere si aplicatii, SEPA Bucuresti, 1987, B.210.

32. **I. Dumitrache**
Proiectarea asistata de calculator a sistemelor fluidice, Conferinta Internationala de fluidica, Bucuresti, 1980., vol.I.

33. **I. Dumitrache**
s.a.
Conducerea on-line a proceselor de biosinteza. Conducerea numerica directa cu microcalclatorul de proces ECAROM-881, Revista de chimie nr.8/1987.

34. **I Dumitrache**
S. Dumitriu
Ameliorarea functionarii in sistem a generatoarelor sincrone prin utilizarea stabilizarii alunecarii, SIMECS, 1987, c16. 1-10.

35. **I. Dumitrache**
Actualitati si tendinte in conducerea proceselor, INFOTEC,1988, pag.67-76.

36. **I. Dumitrache**
F. Munteanu
Organizarea algoritmilor de conducere numerica sub controlul unui executiv de timp real, Al 5-lea simpozion de Teoria Sistemelor, Craoiva, 1988.

37. **I. Dumitrache**
S. Dumitriu
Simularea pe calculator a regimului dinamic al generatorului sincron pe baza unui model dinamic neliniar, SEPA, Bucuresti, 1988, pag. 48-55.

38. **I. Dumitrache**
Stadiul actual si tendinte in automatizarea proceselor, Lucrarile Conferinte iNationale INFOTEC, vol.I, 1988, pag.67-76.

39. **I. Dumitrache**
s.a.
Algoritmi neliniari pentru reglarea proceselor cu timp mort, Al 5-lea simpozion de Teoria Sistemelor, Craoiva, vol.I, 1988.

40. **I. Dumitrache**
    S. Dumitriu
Sinteza unui compensator-stabilizator pentru un generator sincron, Al 2-lea smpozion de Structuri si Algoritmi de Conducere a Proceselor (SACP), Iasi, 1989, pag.521-526.

41. **I. Dumitrache**
    G. Musca
Algoritmi de reglare in numere intregi, SACP-II, Iasi, 1989, pag.561-566.

42. **I. Dumitrache**
    N. Tatar
Sistem expert pentru conducerea in timp real a unui bioreactor, SACP-II, Iasi, 1989.

43. **I. Dumitrache**
Strategii euristice in conducerea proceselor, Al 4-lea simpozion de Teoria Sistemelor, Craiova, vol.I,1991.

44. **I. Dumitrache**
Advanced Process Control Techniques, National Scientific Seminar "Process Control", 1994, pag.193-197.

45. **I. Dumitrache**
    I. Mihu
    K. Rosu
Hybrid Decision Systems for Medical Dyagnosis.1996. Infomedica

46. **I. Dumitrache**
    S. Dumitriu
    C. Murichescu
Metoda si program de calcul pentru determinarea acordarii optime a canalelor semnalelor de reactie suplimentare ale regulatoarelor de excitatie. Sesiunea de Comunicari Stiintifice ICSITEE-IMGB-Bucuresti, 1987, pag.491-496

47. **I. Dumitrache**
    M. Dragoicea
Design of a reactive implementation for autonomous navigation of the mobile robots, Conferinta Nationala de Robotica CNR'2002, 17-19, Craiova Ed. Universitaria, pp. 111 – 118, Octombrie 2002

48. **I. Dumitrache**
Intelligent Control of Mobile Robots*,* The 7th International Conference on Mechatronics and Precision Engineering, Bucuresti, Mai, pp. 2004, 79-83.

Articole publicate în volumele unor conferințe internaționale

1. S. Florea
    I. Dumitrache
    A.M. Stanescu
Fluidic controller for slow processes in chemistry, Proceedings for the Fourth Fluidic Conference, 1970, J2-13-24.

2. S. Florea
    I. Dumitrache
    V.Gaburici
A point of point positioning system, Proceedings of the First International Fluidic Application Conference, Bratislava, 1973, pag.254-266.

3. **I. Dumitrache**   **The algorithm for optim design of fluidic digital circuits**,The Proceedings of the Fifth Jablona Fluidics Conference, Budapesta 1974

4. S. Florea   **The protection systems for chemical plants**, The
    I. Dumitrache   Proceedings of the Fifth Jablona Fluidics Conference, Budapesta 1974

5. **I. Dumitrache**   **A hybrid fluidic controller for hydrostatic
    G. Murad   transmission**, The Proceedings of the Fluidic Conference, Shefield 1975

6. **I. Dumitrache**   **An algorithm for optimisation of non-linear chemical
    D. Popescu   systems**, The Proceedings of the Fifth Symposium Computers in Chemical Engineering, pag.670-676, 1975

7. **I. Dumitrache**   **The methods for the synthesis of the fluidic logic
    S. Florea   circuits realised by using threshold elements**, The Proceedings of the Sixth Jablona Fluidics Conference, Moscova 1976

8. S. Florea   **Technological protection system achieved by fluidic
    I. Dumitrache   elements,** The Proceedings of the Sixth Jablona Fluidics Conference, Moscova 1976

9. **I. Dumitrache**   **Some problems concerning automatic control and
    F. Munteanu   optimization of the fermentation processes**, The
    S. Dumitriu   Proceedings of 3-rd Computer and Control Systems Conference, 1979, pag.516-526

10. **I. Dumitrache**   **On the microcomputer control of electrical D.C.
    S. Dumitriu   Devices**, The Proceedings of 3-rd Computer and Control Systems Conference, 1979, pag.583-593

11. **I. Dumitrache**   **Non-linear fluidic controller realised by threshold logic**, The Proceedings of the 7-th Jablona Fluidics Conference, Dresda, 1979

12. **I. Dumitrache**   **Some problems about the fluidics an electronics equipments compatibility**, The Proceedings of the 7-th Jablona Fluidics Conference, Dresda, 1979

13. V. Catuneanu   **Blood Pressure Control System**, The Proceedings of
    C. Penescu   3th Control Systems and Computer Science CSCS-3,
    I. Dumitrache   1979, vol.III, pag.712-718.
    G. Ionescu

14. **I. Dumitrache**
G. Braileanu
    Some non linear algorithm implemented on microcomputer controller, The Proceedings of IFAC Symposium, Londra, 1980.

15. **I. Dumitrache**
S. Florea
    Fluidic Systems with Threshold Logic Elements, Proceedings of 8th Fluidic Conference 1980, vol.I, pag.140-148.

16. I. Dumitrache
    Computer-Aided Design of Fluidic Circuits, Proceedings of 8th Fluidic Conference 1980, vol.I, pag.165-173

17. **I. Dumitrache**
S. Dumitriu
    Diskretnii algorithm s permenoi structurnii dlia upravlenia tiristornovo privoda, 6-ia Naucine Tech. Conf. Interelectro, vol.1, nr.22, 1982

18. **I. Dumitrache**
    Some problems about design of distributed control systems, The Proceedings of IFAC Symposium, Paris, 1982

19. **I. Dumitrache**
S. Dumitriu
    Discret-time variable structure algorithm for micoprocessor control of thyristor D.C. Drives, MECO (IASTED) International Symposium Atena, 1983, paperno. 142, Preprints

20. **I. Dumitrache**
M. Dumitrache
    PROSIM-A pachege program for computer-aided design, The Proceedings of IASTED Symposium Lille, 1983, vol.III, pag.75-79

21. **I. Dumitrache**
S. Dumitriu
    Adaptive structure algorithms for microprocessor control of D.C.motors, 1-st European Power Electronics Conf. Bruxells, 1985, vol.2, pag.257-262

22. **I. Dumitrache**
G. Musca
    PROSID-A program package for CAD of digital control systems, SAII-6, Bucuresti, 1985

23. **I. Dumitrache**
    Numerical control algorithms for time delay system, SAII-6, Bucuresti, 1985

24. **I. Dumitrache**
S. Dumitriu
    PACSID-Program package for computer aided of distributed parameters systems, IMACS, Lille, 1986

25. **I. Dumitrache**
s.a.
    Non-standard control algorithms for slow-processes, implemented on microprocessor based digital controller, LCA'86, IFAC, Symposium, Valencia, 1986, pag.263-270

26. **I. Dumitrache**
    S.Dumitriu
    Adaptive control algorithms for D.C.Drives, Intern. Conf. on Electrical Machines and Driving Systems INCEMADS, Eforie Nord, vol.2, 1986, pag.61-66

27. **I. Dumitrache**
    Some problems about digital implementation of adaptive control algorithms, SAII-7, IPB, 1987, vol.I, pag.66-97

28. **I. Dumitrache**
    F. Munteanu
    G. Musca
    Direct digital control of a biosynthesis processes, SAII-7, IPB, Bucuresti, 1987, vol.II, pag.76-80

29. **I. Dumitrache**
    C. Constantinescu
    A low cost fault-tolerant microcomputer for industrial control, LCA Symposium Milano, 1989.

30. **I. Dumitrache**
    Some problems about digital implementation of predictive control algorithms, The Proceedings of 8-th CSCS, 1991, vol.I, pag.239-244.

31. **I. Dumitrache**
    S. Dumitriu
    State feedback stabilizing compensator design for syncronons generator connected to the line, The Proceedings of 8-th CSCS, 1991, vol.I, pag.254-260.

32. **I. Dumitrache**
    C. Nitu
    s.a.
    Algorithmsand computer control structure of a dryingbatch process, The Proceedings of 8-th CSCS, 1991, vol.III, pag.10-15.

33. **I. Dumitrache**
    G. Calcev
    An Expert System for Bioreactor Control, IFAC Conference SICICA '92, Malaga, Spain, 1992, pag.465-471.

34. **I. Dumitrache**
    G. Calcev
    R. Constantinescu
    C. Buiu
    A Real-time Control Experiment Using a Neural Network-based Linguistic Approach, AIRTC 92, IFAC/IFIP/IMACS Int. Conf. on Art. Intelligence in Real Time Control, Delft, Netherlands, 1992.

35. **I. Dumitrache**
    R.Constantinescu
    C. Buiu
    G. Calcev
    A Survey of Tuning Techniques in Fuzzy Logic Control, First Int. Conf. on Fuzzy Systemsand AI, Iasi, 1992.

36. **I. Dumitrache**
    I. Mihu
    The Robustness of a Smith Controller, 8th Int. Conf. on Control Systemsand Computer Science, Bucuresti, 1991, vol.I, pag.308-313.

37. **I. Dumitrache**
    I. Mihu
    On the Robustness of PI Algorithms for Time-Delay Processes, Proceedings of the 9-th International

Conference of Control Systemsand Computer Science, Bucuresti, 1993, vol.I, pag.166-172.

38. **I. Dumitrache**   **Intelligent Techniques for Control Applications**, Proceedings of the 9-th International Conference of Control Systemsand Computer Science, Bucuresti, 1993, vol.I, pag.178-185.

39. G. Calcev
    I. Dumitrache   **Synthesis of a Neuro Fuzzy Controller Using CMAC Approach**, Proceedings of the 9-th International Conference of Control Systemsand Computer Science, Bucuresti, 1993, vol.II, pag.247-252.

40. P. Teta
    I. Dumitrache   **Advanced Control Techniques in Power Systems**, Proceedings of the 9-th International Conference of Control Systems and Computer Science, Bucuresti, 1993, vol.II, pag.346-352.

41. **I. Dumitrache**
    C. Janikow
    C. Buiu   **Tuning Fuzzy Logic Controller Using Genetic Algorithms**, Proceedings of the 9-th International Conference of Control Systemsand Computer Science, Bucuresti, 1993, vol.II, pag.450-462.

42. S. Bradatan
    A. Stanescu
    I. Dumitrache   **Modelling an Intelligent Supervisor for Flexible Assembly Systems**, Proceedings of IMACS/IFAC 2nd International Symposium on Mathematical and Intelligent Models in System Simulation, Bruxelles, 1993.

43. **I. Dumitrache**
    G. Calcev
    M. Caramihai   **Neural Networks in Modeling and Control of Bioprocesses**, IMACS Symposium, Bruxelles, vol.I, pag. 351-355.

44. **I. Dumitrache**   **Problems Concerning the Design of Knowledge-Based Controllers,** Proceedings of the 4th International Conference on Optimization of Electric and Electronic Equipments", 1994, vol.II, pag.341-347.

45. **I. Dumitrache**
    Th. Borangiu
    A. Popescu   **Neural Networks in Intelligent Manufacturing Systems**, IFAC Symposium IMS'94, Vienna.

46. **I. Dumitrache**
    S. Iliescu
    P. Teta
    P. Zdrafcovici   **New approaches in Power Systems Control**, Proceedings of National Energy Conference, Bucuresti, 1994, vol.4, pag.83-89.

47. **I. Dumitrache**
    C. Catana
    A. Militaru   **Fuzzy controller for an Electrohydraulic Positioning System**, ASME 1994, Chicago, pag.1-7.

48. **I. Dumitrache**
    C. Buiu
Genetic Algorithms in Intelligent Control System Design, 2nd IFAC Symposium on Intelligent Components and Instruments for Control Applications, Budapest, Hungary, 1994, Preprints, pag.189-193.

49. I. Mihu
    I. Dumitrache
Decision Support Systms for Medical Diagnosis, International Conference on Technical Informatics CONTI'94, Timisoara, Romania, Proceedings, vol.I, pag,232.237.

50. C. Nicolae
    I. Dumitrache
Performance in Pole Assignement Adaptive Controller Design, The Proceedings of 10th Int. Conf. in Control Systems and Computers Science, 1995, vol.I, pag.186-192.

51. **I. Dumitrache**
    S. Iliescu
    C. Chiculescu
State Predictionby Neural Networks, The Proceedings of 10th Int. Conf. in Control Systems and Computers Science, 1995, vol.I, pag.197-203.

52. A. Popescu,
    I. Dumitrache
Vision Based Control for External Adaptive Robots, The Proceedings of 10th Int. Conf. in Control Systems and Computers Science, 1995, vol.II, pag.141-148.

53. Th. Borangiu
    I. Dumitrache
    A. Popescu
Artificial Neural Networks in Robot Motion Control, The Proceedings of 10th Int. Conf. in Control Systems and Computers Science, 1995, vol.II, pag.155-162.

54. **I. Dumitrache**
    C. Buiu
Learningthe Algebric Model of a Fuzzy Controller by a Genetic Algorithm, The Proceedings of 10th Int. Conf. in Control Systems and Computers Science, 1995, vol.III, pag.108-116.

55. **I. Dumitrache**
    I. Mihu
    K. Rosu
Hybrid Decision Making System for Medical Diagnosis, The Proceedings of 10th Int. Conf. in Control Systems and Computers Science, 1995, vol.III, pag.174-180.

56. **I. Dumitrache**
    S.I. Caramihai
    A.M. Stanescu
Intelligent Supervisory for Manufacturing Systems. Preprints OF 3rd IFAC / IFIP / IFORS Workshop-Intelligent Manufacturing Systems 1995,vol I,pag.107-113

57. A.M.Stanescu
    I. Dumitrache
    A. Curaj
Hierarchical Object 0 Oriented Mission Planning for Multilegged Autonomous Robots. Preprints OF 3rd IFAC / IFIP / IFORS Workshop Intelligent Manufacturing Systems 1995,vol I,pag. 133-139

58. **I. Dumitrache**
   A. Craciunescu
   S. Dimitriu

Intelligent Techniques in motion Control Proceedings of the 5th International conference on Optimization of electric and Electronic Equipments, Brasov 1996, pag. 1491-1499

59. A. Ionita
   I. Dumitrache
   T. Ionescu

Noise Reduction in Biomedical Applications. A high order spectra approach, Proceedings of the 13th IFAC World Congress, San Francisco 1996, vol.B, pag.441-447

60. G. Calcev
   R. Gores
   I. Dumitrache

A Popov Type Approach to Stability Analyses of Fuzzy Control Systems. Proceedings of the 4th European Congress on Intelligent Techniques and Soft Computing Aachen 1996, Vol.1, pag 3-8

61. S. Dimitriu
   I. Dumitrache

Advanced Robotic Motion Control – Proceedings of International Conference, Univ.Arad, 1996 , pag. 756-761

62. **I. Dumitrache**
   S. Iliescu
   S. Dimitriu

Adaptation of undergraduate curricula at the Faculty of Automatics and Computers Bucharest & ensure the compatibility with EU partners and use of ECTS- Workshop on University Autonomy, Curricula Compatibilityand ECTS, Iasi, 1996, Proceedings, Pag.85-90

63. **I. Dumitrache**
   S. Dimitriu
   G. Pod

Use of ECTS for postgraduates studies programs in CACE offered by the Faculty of Automatics and Computers. Workshop on University Autonomy, Curricula Compatibility and ECTS-Iasi 1996, Proceedings , pag. 137-140

64. N. Constantin
   I. Dumitrache

Multimodel Self-Tuning Predictive Control, Proceedings CSCS 11, pp.161-166, Bucharest, Mai 1997.

65. **I. Dumitrache**
   I. Mihu
   Gh. Musca

Control time delay processes based on Smith predictor, IFAC 4th SSC'97, Proceedings 455-460, Bucharest, Octombrie 1997.

66. **I. Dumitrache**
   C. Buiu

Fuzzy control: from manual design and tuning to geno-fuzzy control, Proceedings of AIRTC 97 Conference, pp 43-48, Kuala Lumpur, Malaysia, Septembrie 1997 (invated paper)

67. **I. Dumitrache**
   S. Dumitriu
   G. Calcev

Fuzzy Controller for a Biotechnological Process – A case study, IFAC 4th SSC'97, Proceedings, pp.480-484, Bucharest, Octombrie 1997

68. F. Filip
    I. Dumitrache
    S. Dumitriu S.

    Cross-cutting issues concerning medical informatics education in Romania, Proceedings of the Health Computing Conference, pp.235, Harrogate, UK, 19-23 Martie 1997

69. I. Mihu
    I. Dumitrache
    R. Ionescu

    Hybrid diagnosis support system based on Dempster – Schafer theory, CSCS 11, vol. II, pp.123-125, Bucharest, Mai 1997

70. S.I. Caramihai
    I. Dumitrache
    A.M. Stanescu

    Real Supervision fi intelligent Manufacturing Supported by T-Temporal Petri net Models, Proceedings of the 1998 IEEE International Conference on Systems, Man anCybernetics SMC'98, 11-14 Octombrie, San Diego, USA

71. S.I. Caramihai
    I. Dumitrache
    A.M. Stanescu
    A. Curaj

    Intelligent Supervising for virtual FMS", Preprints of the First International Symposium ISOCE'98, 4-6 Iunie 1998, Sinaia, Romania, pp.117-126.

72. A. Curaj
    A.M. Stanescu
    I. Dumitrache

    FABRICATOR – A virtual factory based concept for Extended Enterprise including SMEs, Preprints of the First International Symposium ISOCE'98, 4-6 Iunie 1998, Sinaia, Romania, pp.187-195.

73. M. Dragoicea
    I. Dumitrache

    Dynamical Process Modelling Using Neural Networks, 6th International Symposium on Automatic Control and Computer Science SACCS'98, 20-21 Noiembrie 1998, Iasi, Romania.

74. **I. Dumitrache**
    I. Mihu
    K. Rosu

    Hybrid decision making for medical system diagnosis, Proceeding the third International Conference on NNSMED'98, pp. 279-285, Pisa Italia.

75. **I. Dumitrache**
    C. Buiu
    C. Ceconvciuc

    Towards new frontiers in evolutionary computing based fuzzy control systems, Proceedings of JointConference on Information Science, Sheraton Imperial Hotel & Convention Centre, Research Trianglepark, N.C., 23-28 Octombrie 1998, pp.448-451.

76. **I. Dumitrache**
    M. Dragoicea

    Nonlinear Control Structure Based on Neural Networks for a Reactor, 6th International Symposium on Automatic Control and Computer Science SACCS'98, 20-21 Noiembrie 1998, Iasi, Romania

77. **I. Dumitrache**
    M. Dragoicea

    From PI Control to Neural Networks Control of Mobile Robots, Preprints of IFAC Symposium on Low Cost

Automation LCA'98, Shenyang, 8-10 Septembrie 1998, China, pp.TS3 22 – TS3 26.

78. **I. Dumitrache**
I. Mihu
Gh. Musca

Design of Smith Predictor Controller By Meansof Rule Based Algorithms, Preprints of IFAC Symposium on Low Cost Automation LCA'98, Shenyang, 8-10 Septembrie 1998, China, pp.TS7 28 – TS7 33

79. **I. Dumitrache**
C. Buiu
C. Ceconvciuc

Hybrid Intelligent Techniques in Autonomous Control Systems, Proceedings of the 1998 IEEE International Conference on Systems, Man and Cybernetics SMC'98, 11-14 Octombrie, San Diego, USA.

80. **I. Dumitrache**
A.M. Stanescu
S.I. Caramihai
A. Curaj

Virtual Enterprise – A Strategical Approach to Improve Socio-Economic Stability, Proceedings of the IFAC Conference SWIIS'98, 14-16 Mai 1998, Sinaia Romania, pp.15-20.

81. N. Constantin
I. Dumitrache

Advanced Adaptive Techniques for Multivariable Nonlinear Processes, Proceedings of the 14th IFAC World Congress, 1999, vol I, pp.174-180

82. **I. Dumitrache**
C. Buiu
C. Ceconvciuc

Advanced Geno-Fuzzy Techniques for Drum Level Control in Thermal Power Plant, Proceedings of the 14th IFAC World Congress, 1999, vol.I, pp.137-142

83. N.Constantin
I. Dumitrache

Neural Adaptive Control for Multivariable Non-Linear Processes, European Control Conference (ECC99), 1999, CD-ROM-F508

84. N.Constantin
I. Dumitrache

Advanced Adaptive Control for Complex Non-linear Processes, Proceedings of CSCS 12 (1999), vol. I, pp. 41-47

85. **I. Dumitrache**
I. Mihu
L. Margarit

Multimodel Adaptive Smith Predictor Controller, Proceedings of CSCS-12 (1999), pp. 143-150

86. L.Margarit
I. Dumitrache

Model Reference Adaptive Control using Multiple Models, Proceedings of CSCS-12 (1999), vol.I, pp.150-156

87. A.M. Stanescu
I. Dumitrache
A. Curaj

Multi-model based system design within virtual factory synergetic framework, Proceedings of the 4th International Conference on Concurrent Enterprising (1997), pp.173-184

88. A.M. Stanescu
    I. Dumitrache
    A. Curaj
    S.I. Caramihai
    G. Neagu

Towards a Human Factors Focused Modelling Framework for Teambuilding in Concurrent Enterprising, Proceedings of the 5th International Conference on Concurrent Enterprising (1999), pp.393-400

89. **I. Dumitrache**
    S.I. Caramihai
    A.M. Stanescu

Intelligent Agent-Based Control Systems in Manufacturing, 2000 IEEE International Symposium on Intelligent Control, pp.369-374

90. N. Constantin
    I. Dumitrache
    I. Mihu

Self-Organizing Neural Fuzzy Inference Network for Intelligent Control, 2000 IEEE International Symposium on Intelligent Control, pp.375-380

91. C. Buiu
    I. Dumitrache

Advanced Technologies for Intelligent Control Researchand Teaching, 2000 IEEE International Symposium on Intelligent Control, pp.381-384

92. C. Buiu
    I. Dumitrache

Remote experimentation in intelligent control systems design, 2nd International Workshop on intelligent Control Systems, aprilie 2000, Bucuresti, Romania

93. N. Constantin
    I. Dumitrache

Intelligent control based on selforganizing Networks, 2nd International Workshop on intelligent Control Systems, aprilie 2000, Bucuresti, Romania

94. **I. Dumitrache**
    N. Constantin

Neural Adaptive Control for Multivariable Nonlinear Processes, UKACC International Conference CONTROL2000, CD-Rom 155.ps, Univ. Cambridge, UK, September 2000

95. **I. Dumitrache**
    S. Dumitriu

Academic Quality Assurance Procedures in Technical Higher Education, proc. of Workshop on Quality Management in Higher Education, Technical University of Vienna, nov. 2000, pp. 92-98

96. **I. Dumitrache**
    S.I. Caramihai
    A.M. Stanescu

Intelligent Information Systems in Advanced Manufacturing, Proceedings of the 6th International Conference on Concurrent Enterprising (2000), pp.241-246

97. **I. Dumitrache**
    S.I. Caramihai
    A.M. Stanescu

Intelligent Agent-based Control Systems in Manufacturing, Proceedings of the 2000 International Symposium on Intelligent Control, July 17th –19th, 2000, Rio Patras, Greece, pag. 369-374

98. S.I.Caramihai
    I. Dumitrache
    A.M. Stanescu
— **Intelligent Supervision for Flexible Manufacturing Systems,** Computers and computational engineering in control, Patras, Greece, 2000, ISBN 960-8052-12-2, pp. 43-48

99. N. Constantin
    I. Dumitrache
    I. Mihu
— **Self-Organizing Neural Fuzzy Inference Network for Intelligent Control**, Proceedings of the 2000 International Symposium on Intelligent Control, July 17th –19th, 2000, Rio Patras, Greece, pag. 375-379

100. C. Buiu
     I. Dumitrache
— **Advanced Technologies for Intelligent Control Research and Teaching**, Proceedings of the 2000 International Symposium on Intelligent Control, July 17th – 19th, 2000, Rio Patras, Greece, pag. 381-384

101. **I. Dumitrache**
     G. Simion
     M. Truta
— **Intelligent Control System Based on the Brain Model**, Proceedings of the 2000 International Symposium on Intelligent Control, July 17th-19th, 2000, Rio Patras, Greece, pag. 385-388

102. **I. Dumitrache**
     I. Mihu
— **Rule-Based Smith Predictor Controller**, Preprints of the 4th IFAC International Syposium on Intelligent Components and Instruments for Control Applications, September 13th-15th, 2000, Buenos Aires, Argentina, pag. 397-401

103. **I. Dumitrache**
     N.Constantin
     M.Dragoicea
— **Adaptive Predictive Control Based on Neural Networks**, Preprints of the 4th IFAC International Syposium on Intelligent Components and Instruments for Control Applications, September 13th-15th, 2000, Buenos Aires, Argentina, pag. 403-407

104. N.Constantin
     I. Dumitrache
— **Robust Control of Nonlinear Process Using Multiple Models**, Proceedings of the 13th International Conference on Control Systems and Computer Science, May 31st-June 2nd, 2001, Bucharest, Romania, pag. 34-39

105. **I. Dumitrache**
     M. Dragoicea
— **Mobile Robots Adaptive Control Using Neural Networks**, Proceedings of the 13th International Conference on Control Systems and Computer Science, May 31st-June 2nd, 2001, Bucharest, Romania, pag. 176-181

106. N.Nezam
     I. Dumitrache
— **Intelligent System and Wastewater Tratament**, Proceedings of the 13th International Conference on Control Systems and Computer Science, May 31st-June 2nd, 2001, Bucharest, Romania, pag. 192-197

107. **I. Dumitrache**
I. Mihu
N. Constantin

The Robusteness of Smith Compensator Based on Fuzzy Controler, Proceedings of the 13th International Conference on Control Systems and Computer Science, May 31st-June 2nd, 2001, Bucharest, Romania, pag. 198-203

108. C. Buiu
M. Albu
I. Dumitrache
D. Gillet

Remote Automatic Control Via Internet, Proceedings of the 13th International Conference on Control Systems and Computer Science, May 31st-June 2nd, 2001, Bucharest, Romania, pag. 214-219

109. N. Constantin
I. Dumitrache

Neuro-Fuzzy Inference Network for Adaptive Control, Proceedings of the 13th International Conference on Control Systems and Computer Science, May 31st-June 2nd, 2001, Bucharest, Romania, pag. 220-225

110. **I. Dumitrache**
S.I. Caramihai
A.M. Stanescu
J. Culita
C. Munteanu

Intelligent Autonomous Agents in Manufacturing, Preprints of the 9th IFAC/IFORS/IMACS/IFIP/ Symposium on Large Scale Systems, July 18th-20th, 2001, Bucharest, Romania, pag. 503-508

111. **I. Dumitrache**
N. Constantin

Adaptive Control Based on Neural Fuzzy Inference Network, European Control Conference ECC'01, September 4th-7th, 2001, Porto, Portugal, pag. 2115-2119

112. **I. Dumitrache**
I. Mihu

On the Robustness of Smith Predictor Controller, European Control Conference ECC'01, September 4th-7th, 2001, Porto, Portugal, pag. 3022-3025

113. S.I. Caramihai
I. Dumitrache

Hybrid Agent-based Control Archietcture Supported by T-temporal Petri Nets, 2001 IEEE Joint International Conference on Control Applications & International Symposium on Intelligent Control CCA/ISIC'01, September 5-7, 2001, Mexico City, Mexic

114. N. Constantin
I. Dumitrache
M. Dragoicea

Multiple Model Learning for Modeling and Control, proc. Of 7th Int. Symp. An Automatic Control And Computer Science - pp. 37 CDROM, SACCS, Iasi, 2001

115. M. Dragoicea
I. Dumitrache
N. Constantin

Adaptive Neural Control for Mobile Robots Autonomous Navigation, Proceedings of the 7th Int. Symposium on Automatic Control and Computer Science SACCS, Iasi, Romania, October 26-27, 2001, ISBN 973-8292-11-5

116. **I. Dumitrache**
     M. Dragoicea
     G. Simion

Reprezentation of the Internal Model in Brain and Artificial Systems, 3rd Int. Workshop on Intelligent Control Systems ICS, November 29-30, 2001, Bucharest, Romania

117. **I. Dumitrache**
     S. Dumitriu

Advanced Motion Control using DSP Based Fuzzy Controller for Brushless Servodrives, International Conference on Control Theory and Applications ICCTA'01, Pretoria, South Africa, December 2001

118. **I. Dumitrache**
     I. Mihu

Knowledge-Based Smith Predictor Controller, ICS'2001, November 3rd International Workshop, Bucuresti, Romania

119. N. Constantin
     I. Dumitrache

Robust control of nonlinear process using multiple models, CSCS 13 proceedings, Bucuresti, pp. 34-39, 2001

120. **I Dumitrache**
     N.Constantin

Robust Nonlinear Control based on Multiple Models, Proceedings, 15th World IFAC Congress, CDRom,Barcelona, Spain, 2002

121. C. Buiu
     I. Dumitrache
     F. Mihai

Complex behaviors of teleoperated robots, IFAC World Congress, Barcelona, 2002

122. **I Dumitrache**
     M. Dragoicea

Intelligent control techniques for mobile robotics, IFAC Workshop Intelligent Assembly and Disassembly IAD'03, October 9-11, Bucharest, Romania, pp:198-203, 2003

123. M. Dragoicea
     I. Dumitrache

Reactive behaviours and environment exploration strategies, Proceedings of the 14th Int. Conference on Control Systems and Computer Science CSCS14, Bucharest, Romania, pp:82-88, 2003

124. C. Buiu
     I. Dumitrache
     M. Zainea

Design and optimization of a fuzzy logic controller for a simulated autonomous robot, Proceedings of CSCS14 (I. Dumitrache and C. Buiu, editors), Vol. I, pag. 24-31, 2003

125. **I. Dumitrache**
     M. Spataru

PID control of the real inverted pendulum process, Proceedings of the 14th International Conference on Control Systems and Computer Science (Editors : I. Dumitrache,C. Buiu), Bucharest,Romania, pp.375-380, 2003

126. **I Dumitrache**
     I. Mihu
     R. Misleanu

     Advanced Smith Predictor Controller Based On Fuzzy Decision Functions, Proceedings of the 14th International Conference on Control Systems and computer Science CSCS14, Bucharest, Romania, pg. 60-64, July 2003

127. N.Constantin
     I. Dumitrache

     Advanced Multimodel Adaptive Control, Int. Workshop on Intelligent Control Systems, pp.87-93, 2003

128. N.Constantin
     I. Dumitrache

     Neural Networks in Predictive Control, Int. Workshop on Intelligent Control Systems pp.72-77, 2003

129. N.Constantin
     I. Dumitrache

     Model predictive control based on multimodel estimation, Proc Int. Conf. on Control Systems and Computer Science, CSCS-14, 354-359, 2003

130. **I Dumitrache**
     A.M. Stanescu
     S.I. Caramihai
     A. Curaj

     Concurent Systems Approach for Designing Virtual Enterprise, Proceedings of the 9th ICE in Enterprise Engineering in the Networked Economy, Espoo, Finland, 16-18 June, 2003

131. A.M.Stanescu
     I. Dumitrache
     S.I. Caramihai
     P. Pascu
     D. Nitescu

     Knowledge management modeling framework for distributed concurrent engineering, Proceedings of the 10th ISPE International Conference on Concurrent Engineering: Research and Applications, Madeira, Portugal, 26-30 July, 2003

132. **I. Dumitrache**
     s.a.

     DECID-*e* – a e-learning Pilot in the Politehnica University of Bucharest, Proceedings of the 10th ISPE International Conference on Concurrent Engineering: Research and Applications, Madeira, Portugal, 26-30 July, 2003

133. **I. Dumitrache**
     M. Dragoicea

     Intelligent control techniqus for mobile robotics, Proceedings of the IFAC Workshop Intelligent Assembly and Disassembly IAD'03, 2004, Elsevier Press, pag. 149-153, ISBN 0-08-044065-7, ISSN 1474-6670

134. **I. Dumitrache**

     Intelligent Control of Mobile Robots, The 7th International Conference on Mechatronics and Precision Engineering, Bucuresti, Mai, pp. 2004, 79-83.

135. **I. Dumitrache**
     s.a.

     A Des-Supported Agent-Based Control Arhchitecture for Flexible Manufacturing System, IFAC DECOM-TT 2004, Automatic Systems for Building the Infrastructure in Developing Countries, Bulgaria, Oct, 2004, pp.59-67.

136.	**I. Dumitrache** S. Iaru	**Embedded Irrigation Controllers – an Integrated Solution for OptimalWater,** IFAC DECOM-TT 2004, Automatic Systems for building the Infrastructure in Developing Countries, Bulgaria, Oct, 2004, pp.331-337.
137.	**I. Dumitrache** N. Constantin	**Multimodel learning techniques for predictive control***, 10th IFAC Symposium on Large Scale Systems: Theory and Application, CDRom, Osaka, Japan, 2004.
138.	**I. Dumitrache** N. Constantin	**A New Neural Predictive Design Method for Complex Processes Control,** 10th IFAC Symposium on Large Scale Systems: Theory and Application, CDRom, Osaka, Japan, 2004
139.	**I. Dumitrache** C. Buiu F. Mihai D. Gillet	**Experiments in Remote Collective Robotics. New Pedagogical Scenarios**, World Conference on Educational Multimedia, Hypermedia and telecommunications, Lugano, June 21-26, 2004
140.	N. Constantin **I. Dumitrache**	**Advanced Predictive Control Based on Multimodel Learning Techniques**, 16th IFAC World Congress, Praga, 4-8 Iulie 2005
141.	C. Buiu **I. Dumitrache** A. Dumitraşcu	**A Conversational Man-Robot Interface to Assist Robotics Education**, 16th IFAC World Congress, Praga, 4-8 Iulie 2005
142.	D. Garlasu **I. Dumitrache**	**A New Approach for E-Learning in Collaboration Networks**, Proc. of 6th Conference on Virtual Enterprise, Valencia, Spain, 2005, pp.243-248
143.	A.M. Stanescu **I. Dumitrache**	**A structural Approach for E-learning Paradigm**. Proc. of 12th ISPE International Conference on Concurrent Engineering, Dallas, USA, 2005, pp. 167-172
144.	**I. Dumitrache** I. Mihu R. Misleanu	**On the Robustness of Modified Smith Predictor Controller for Time Delay Processes**, Proc. of 15th International Conference on Control Systems and Computer Science, Bucuresti, Mai 2005, pp. 354-359
145.	**I. Dumitrache** D. Garlasu A.M. Stanescu C. Ninca	**A New Approach for E-learning in Robotics**, Proc. Of RAAD'05 14th International Workshop on Robotics in Alpe-Adria-Danube Region, Bucuresti, Mai 2005, pp. 240-245
146.	S. Olaru D. Dumur **I. Dumitrache**	**On the Continuity of Control Laws Based on Multiparametric Linear Programming**, 13th IFAC Workshop on Control Applications of Optimisation, Paris, France, 2006

147. A.M. Stanescu
I. Dumitrache
I. Mihu
M.A. Moisescu
M. Voinescu
O. Cangea

Synergy-focus to Develop Complex Adaptive Systems within Collaborative Network Environment to Health Paradigm, 8th IFIP Working Conference on Virtual Enterprises, Portugal, 2007

148. A.M. Stanescu
I. Dumitrache

Towards Interoperability Based Colaborative Research to Support Environment and Health, Projects in common Europe – Sophia Antipolis 2002, Bruxelles, 2007

149. **I. Dumitrache**
A.M. Stanescu
S. Caramihai

Next generation of intelligent manufacturing systems: a survey, Conferinta IFAC MCPL 2007, Manufacturing and Control of Production and Logistics, Sibiu, Romania, ISBN 978-973-739-481-1, 2007

150. S. Caramihai
I. Dumitrache
A.M. Stanescu
C. Munteanu
J. Culita

Using mobile agent-based techniques in knowledge management for organisational network interoperability, Conferinta IFAC MCPL 2007, Manufacturing and Control of Production and Logistics, Sibiu, Romania, ISBN 978-973-739-481-1, 2007

151. A.M. Stanescu
I. Dumitrache
A. Mircea
L. Gherman
M. Moisescu

Towards holistic approach for business informatics, Conferinta IFAC MCPL 2007, Manufacturing and Control of Production and Logistics, Sibiu, Romania, ISBN 978-973-739-481-1, 2007

152. D. Garlasu
I. Dumitrache
I. Mihu
M.A. Moisescu
M. Voinescu
I.S. Sacala

Crossdomain «ENVIRONMENT-HEALTH» Interoperable Metasystem, Conferinta IFAC MCPL 2007, Manufacturing and Control of Production and Logistics, Sibiu, Romania, ISBN 978-973-739-481-1, 2007

153. S. Caramihai
I. Dumitrache
A.M. Stanescu
J. Culita

A cooperative agent based control architecture, The 5th IFAC Intl. WS DECOM-TT 2007, Cesme, Turkey, Proceedings Conf., ISBN 978-975-01864-1-1

154. **I. Dumitrache**
A.M. Stanescu

Collaborative networks for complex adaptive systems, Proceedings of the 16th International Conference on Control Systems and Computer Science CSCS16, Bucharest, 2007, ISBN 978-973-718-741-3

155. **I. Dumitrache**
      I. Mihu
      M. Voinescu

A Hybrid Medical Decision Support System, Proceedings of the 16th International Conference on Control Systems and Computer Science CSCS16, Bucharest, 2007, ISBN 978-973-718-741-3

156. Fadi Halal
      I. Dumitrache

Genetic optimization of Fuzzy controller for mobile robots, Proceedings of the 16th International Conference on Control Systems and Computer Science CSCS16, Bucharest, 2007, ISBN 978-973-718-741-3

157. **I. Dumitrache**
      I. Mihu
      M. Voinescu

An Advanced Decision Support System for Medical Diagnosis, Proceedings of the 17th IFAC WC 2008, Seoul, Korea, 1:9607-9612., ISBN 978-3-902661-00-5, 2008

158. **I. Dumitrache**
      M. Dragoicea

Agent-based Theory Applied in Mobile Robotics, Proceedings of the 17th IFAC WC 2008, Seoul, Korea, pp. 13719-13724, ISBN 978-3-902661-00-5, 2008

159. **I. Dumitrache**
      S. Caramihai

Towards a New Generation of Intelligent Manufacturing Systems, IS 2008 4th International IEEE Conference on Intelligent Systems, 2-6 Sept., Varna, Bulgaria, Conf. Proceeding pp. 433-438

160. M. Caramihai
      I. Dumitrache
      A.A. Chirvase

Progress in Aerobic Bioprocess Modeling and Control. Case Study, Int. Conference on Industrial Microbiology and Applied Biotechnology, October 9 - 11, 2008, Galaţi

161. I. Necoara
      I. Dumitrache
      J. Suykens

Smoothing Techniques for Distributed Model Predictive Control Algorithms in Networks, 8th IFAC Workshop on Time Delay Systems, Sinaia, Romania, September 2009, pp. 6

162. **I. Dumitrache**
      S.I. Caramihai
      M.A. Stanescu

Knowledge management in intelligent manufacturing enterprise, Proceedings of AIKED'09 the 8th WSEAS International Conference on Artificial Intelligence, Knowledge Engineering and Data Bases, ISBN 978-960-474-051-2 Cambridge, UK, Feb. 2009, pp. 453-458

163. **I. Dumitrache**
      A.M. Stanescu
      S. Caramihai
      M. Voinescu
      M.A. Moisescu
      I.S. Sacala

Knowledge Management Based Supply Chain in Learning Organization, 13th IFAC Symposium on Information Control Problems in Manufacturing, 3-5 June 2009, Moscow, Russia, pp. 6

164. **I. Dumitrache**
     I. Mihu
     M. Voinescu

     An Agent-Based Approach for Medical Diagnosis, Conference on Control Systems and Computer Science-17, May 26-29 2009, Bucharest, Romania, ISSN 2066-4451, pp. 331-336

165. **I. Dumitrache**
     I. Catana
     V. Panduru
     M. Patrascu

     Fuzzy Control Strategies for Magnetorheological dampers, 17th Intl. Conference on Control Systems and Computer Science, May 26-29 2009, Bucharest, Romania, ISSN 2066-4451, pp. 215-220

166. S. Caramihai
     M. Voinescu
     C. Munteanu
     I. Dumitrache

     An Agent-Based Approach for Urban Traffic Simulation and Control, 6th IFAC International Workshop on Knowledge and Technology Transfer in/to Developing countries: Automation and Infrastructure, September 26-29, 2009, Ohrid, Macedonia

167. M. Voinescu
     S. Caramihai
     I. Dumitrache

     A simulation tool for an agent-based mobile robot application, 10th European Control Conference 2009 - ECC'09, 23-26 August 2009, Budapest, Hungary, ISSN 0947-3580, pp. 6

168. **I. Dumitrache**
     I. Mihu
     M. Voinescu

     An Agent-Based Approach for Medical Diagnosis, 17th Intl. Conference on Control Systems and Computer Science, May 26-29 2009, Bucharest, Romania, ISSN 2066-4451, pp. 331-336

169. A.M. Stanescu
     I. Dumitrache
     C. Burileanu
     N. Vasiliu
     M. A. Moisescu
     I. S. Sacala

     ARCHE3S: first Living Lab enabler in Romania aiming at cross domain synergy-based approach to sustain SMEs, Proceedings of 15th Intl. Conference C. Engineering, ICE 2009, ISBN 978085358, pp. 25-32

170. M. Stanescu
     I. Dumitrache
     S. Caramihai
     M. A. Moisescu
     I. S. Sacala

     The Grand Unification : Emerging Sciences to Support Interoperability Based Complex Adaptive Systems in Intelligent Manufacturing, 8ème Congrès International de Génie Industriel, 10-12 Juin 2009, Toulouse, France, pp. 6

171. S. Caramihai
     I. Dumitrache

     An Agent Oriented Software platforme for Urban Traffic Networks Modelling Analysis and Control, The Proceedings of the Second IFAC Symposium on Telematics Applications – TA 2010, pag. 7 – 13

172.   O. Arsene
       I. Dumitrache
       I. Mihu
Colaborative Medical Software Agents, The Proceedings of IFAC Workshop on Intelligent Control Systems – WICS 2010, pag. 39 – 45

173.   I. Necoara
       I. Dumitrache
       J.A.K. Suykens
Fast primal-dual projected linear iterations for Distributed Consesnsus in constrained convex optimization, The Proceedings of Conference of Decizion and Control, Atlanta, dec. 2010

174.   S. Caramihai
       I. Dumitrache
Integral modeling and control platforme for urban Traffic Networks, 2010 IEEE International Conference on Man and Cybernetics – SMC 2010, Istanbul, 10-13 oct. 2010

175.   M. Patrascu
       A.B. Hanchevici
       I. Dumitrache
Tuning of PID Controllers for Non-Linear MIMO Systems Using Genetic Algorithms, Proceedings of the 18thCongres, Milano, Italy, pp.12644-12649, 2011

176.   I. Necoara
       V. Nedelcu
       I. Dumitrache
       N. Constantin
A primal-dual consensus algorithm for convex problems from network control and estimation, Proceedings of the IFAC World Congress, 2011

177.   C. Dumitrascu
       I. Dumitrache
Human Skin Detection using Texture information and vector Procesing by Neural Networks, The proceedings of CSCS 18, 2011, pp.112-121

178.   S.I. Caramihai
       I. Dumitrache
       M.C. Voinescu
Inteligent Agent-Based Systems for Urban Traffic Monitoring and Control, The proceedings of CSCS 18, 2011, pp.744-750

179.   C. Buiu
       A.B. Pavel
       C. Vasile
       I. Dumitrache
Perspective of using Membrane Computing in the Control of Mobile Robots, Proceedings of The International Conference Beyond AI: Interdisciplinary Aspects of a Artificial Intelligence 2011, pp.20-26

180.   A.B. Hanchevici
       I. Dumitrache
On Line tuning of PID Controller for linaer SISO system with random Communication delay by using Genetic Algorithms, IFAC Conference of Advances in PID Control – PID 12, Brescia, 28-30 martie 2012

181.   A.B. Hanchevici
       I. Dumitrache
Intelligent PID control for linear SISO systems with Random Communication Delay by using On-line GA, Proceedings of 11-th IFAC/IEEE International Conference on Programmable Devices and Embedded Systems, Brno, 2012

182.   A.B. Pavel
       C.I. Vasile
       I. Dumitrache

Numerical P systems and applications in robot controlling, 10-th Brainstorming week Membrane Computing – Seville, 2012

183.   O. Arsene
       I. Dumitrache

Design of Complex Software Systems, First International Workshop on Cyber Physical Systems – IWOCPS – 2012

184.   A.B.Pavel
       C.I. Vasile
       I. Dumitrache

Robot localization implemented with enzymatic numerical P systems, Living Machines 2012 – the International Conference on Biomimetic and Biohibrid Systems, Barcelona, Spain 2012, Proceedings in Lecture Notes in Artificial Intelligence, Springer, ISI Vol. 7375, http://rd.springer.com/chapter/10.1007/1978-3642-31525-1-18

185.   A.B.Pavel
       C.I. Vasile
       I. Dumitrache

Improving the universality results of Enzymatic Numerical P Systems, Proceedings of 10-th Brainstorming week on Membrane Computing. (http://www.gen.us.es/icsmc2012 proceedings) ISI vol. 2, pp. 207-214

186.   A.B.Pavel
       C.I. Vasile
       I. Dumitrache
       J. Kelemen

Implementing obstacle avoidance and follower behaviors on robots using Numerical P systems, ISI Proceedings of the 10-th Brainstorming Week on Membrane Computing, vol. 2, pp.215- 228, 2012

187.   **I. Dumitrache**
       S.Caramihai
       A.M.Stanescu

From Mass Production to Intelligent Cyber-Enterprise", pg.399-405; The Proceedings of 15-th International Conference on Control Systems and Computer Science, Published by the IEEE Computer Society – 2013

188.   **I. Dumitrache**
       S. Caramihai

The Enterprise of Future as a Cyber-Physical-Systems pg. 1326-1330; The proceedings of the Conference on Munufacturing, Modeling, Management and Control – IFAC Conference (Sankt Petersburg) Paper Plaza, 2013

189.   **I. Dumitrache**
       N. Constantin
       O. Stoica

Some challenges for the Cyber-Physical Energy Systems pg. 3-9; The Proceedings of the 2-th IFAC Workshop (ICPS-2013) Convergence of Information Tehnologies and Control Methods with power Systems – IFAC Paper Plaza, 2013

190.   **I. Dumitrache**
       S. Caramihai

Intelligent Cyber-Enterprise in Production Systems, 19th IFAC World Congress Proceedings, IFAC-Papers Online pag. 821-826

191. I. Necoara
I. Dumitrache

Iteration Complexity of inexact augmented Lagrangian method, 19th IFAC World Congress Proceedings, IFAC-Papers Online pag. 2927-2932

192. **I. Dumitrache**
S. Caramihai

Some Challenges of Big Data on CPS modeling, Proceedings of the 3th International Workshop on Cyber-Physical Systems IWOCS-3, pag.7-18

193. S. Caramihai
I. Dumitrache

CPS-Driver for next Industrial revolution – Industrie 4.0, Proceedings of the 3th International Workshop on Cyber-Physical Systems IWOCS-3, pag.27-37

194. D.I. Dogaru
I. Dumitrache

Cyber-physical systems in healthcare networks. In E-Health and Bioengineering Conference (EHB), 2015, pp. 1-4. IEEE, 2015.

195. S.I. Caramihai
I. Dumitrache

Agricultural Enterprise as a Complex System: A Cyber Physical Systems Approach. In Control Systems and Computer Science (CSCS), 2015 20th International Conference on, pp. 659-664. IEEE, 2015.

196. **I. Dumitrache**
D.I. Dogaru

Smart Grid Overview: Infrastructure, Cyber-Physical Security and Challenges. In Control Systems and Computer Science (CSCS), 2015 20th International Conference on (pp. 693-699). IEEE. 2015, May.

197. V. Nedelcu
I. Necoara
I. Dumitrache

Complexity of an Inexact Augmented Lagrangian Method: Application to Constrained MPC. In 19th World Congress of the International Federation of Automatic Control, pp. 2927-2932. 2014.

198. **I. Dumitrache**

Factories of Future Towards Next Industrial revolution. In Automation, Quality and Testing, Robotics (AQTR), 2016 IEEE International Conference on, pp. 3-4. IEEE, 2016.

199. D. Repta
I.S. Sacala
M.A. Moisescu
I. Dumitrache
A.M. Stanescu

Automated Process Model Generation for Internet of Things Oriented Enterprise Systems. In Enterprise Interoperability VII, pp. 139-149. Springer International Publishing, 2016.

200. D.I. Dogaru
I. Dumitrache

Cyber security in healthcare networks. In E-Health and Bioengineering Conference (EHB), 2017, pp. 414-417. IEEE, 2017.

201. D.I. Dogaru
I. Dumitrache

Robustness of Power Systems in the Context of Cyber Attacks. In Control Systems and Computer Science (CSCS), 2017 21st International Conference, pp. 506-512. IEEE, 2017.

202. D.I. Dogaru
I. Dumitrache

Holistic Perspective of Big Data in Healthcare. In E-Health and Bioengineering Conference (EHB), 2017, pp. 418-421. IEEE, 2017.

203. D.C. Popescu
M.O. Cernaianu
P. Ghenuche
I. Dumitrache

An Assessment on the Accuracy of High Precision 3D Positioning Using Planar Fiducial Markers. In 2017 21st International Conference on System Theory, Control and Computing (ICSTCC), pp. 471-476. IEEE, 2017.

204. **I. Dumitrache**
S.I. Caramihai
I.S. Sacala
M.A. Moisescu

A Cyber Physical Systems Approach for Agricultural Enterprise and Sustainable Agriculture. In Control Systems and Computer Science (CSCS), 2017 21st International Conference on, pp. 477-484. IEEE, 2017.

205. M.A. Moisescu
I.S. Sacala
I. Dumitrache
D. Repta

Cyber Physical Systems Based Model-driven Development for Precision Agriculture. In Proceedings of the Symposium on Model-driven Approaches for Simulation Engineering, p. 6. Society for Computer Simulation International, 2017.

206. I.S. Sacala
I. Dumitrache
M. A. Moisescu
A.M. Stanescu
S.I. Caramihai

Agricultural Enterprise Architecture Based on Cyber Physical Systems Paradigm. In 2017 International Conference on Engineering, Technology and Innovation (ICE/ITMC), pp. 1306-1311. IEEE, 2017.

207. D. Repta
I.S. Sacala
M.A. Moisescu
I. Dumitrache

Towards Document Flow Discovery in e-health Systems. In 2018 International Conference on Intelligent Systems (IS), pp. 267-271. IEEE, 2018.

208. D. Repta
M.A. Moisescu
A. C. Nae
I.S. Sacala
I. Dumitrache

Towards Document Flow Discovery in e-Government Systems. In 2018 International Symposium on Electronics and Telecommunications (ISETC), pp. 1-4. IEEE, 2018.

209. M. A. Moisescu
I.S. Sacala
I. Dumitrache
S.I. Caramihai
N. Constantin
B. Barbulescu
M. Danciuc.

A Cyber-Physical Approach in Heterogeneous Communication Networks. In 2019 22nd International Conference on Control Systems and Computer Science (CSCS), pp. 616-621. IEEE, 2019.

210. M.A. Moisescu
I. Dumitrache
B. Barbulescu
I.S. Sacala
S.I. Caramihai
M. Danciuc

Cyber-Physical Systems Oriented Redundant Network Node. In Proceedings of the 6th Conference on the Engineering of Computer Based Systems, p. 11. ACM, 2019.

211.   C.-M. Dumitrescu
       I. Dumitrache

Combining Neural Networks and Global Gabor Features in a Hybrid Face Recognition System. In 2019 22nd International Conference on Control Systems and Computer Science (CSCS), pp. 216-222. IEEE, 2019.

212.   A. Nae
       I. Dumitrache

Neuro-Fuzzy Traffic Signal Control in Urban Traffic Junction. In 2019 22nd International Conference on Control Systems and Computer Science (CSCS), pp. 629-635. IEEE, 2019.

213.   D.I. Dogaru
       I. Dumitrache

Cyber Security of Smart Grids in the Context of Big Data and Machine Learning. In 2019 22nd International Conference on Control Systems and Computer Science (CSCS), pp. 61-67. IEEE, 2019.